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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,981	01/19/2001	Purnam Anil Sheth	CISCO-3189	4112

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EXAMINER
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BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/765,981	<b>Applicant(s)</b> SHETH, PURNAM ANIL	
	<b>Examiner</b> Benjamin R Bruckart	<b>Art Unit</b> 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 25-32, 49-56 and 73-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 25, 26, 49, 50, 73, 74 is/are rejected.
- 7) ☒ Claim(s) 3-8, 27-32, 51-56 and 75-80 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

Claims 1-8, 25-32, 49-56, 73-80 are pending in this Office Action.

Claims 9-24, 33-48, 57-72 and 81-96 are withdrawn but should be canceled.

***Election/Restrictions***

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application.

Withdrawing claims is not the same as canceling. The claims in the next action MUST be cancelled.

***Allowable Subject Matter***

Claims 3-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 1 is rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 6,564,216 by Waters in view of U.S. Patent No. 6,052,725 by McCann et al.**

Regarding claim 1, a method for managing Internet Protocol (IP) addresses on a data communications network (Waters: col. 2, lines 12-15; McCann: col. 6, 46-52), comprising: allocating a plurality of local IP address pools (Waters: col. 3, lines 37-45), each of said local IP address pools associated with a different network edge device capable of accepting connection requests requiring an IP address (Waters: col. 6, lines 11-19, 24-32), said network edge device having a local memory (Waters: col. 4, lines 40-50; Table 1, Minimum Memory) and

updating one or more of said local IP address pool database (McCann: col. 4, lines 45-47; Waters: col. 6, lines 11-19) and a global IP pool database based upon said reallocating (Waters: col. 6, lines 39-45), said global IP address pool database including the information maintained in each said local IP address pool (Waters: col. 6, lines 11-19). The Waters reference does not explicitly state local database.

The McCann reference teaches said local memory including a local IP address pool database (McCann: col. 4, lines 45-57); requesting IP address usage data from one or more of said network edge devices (McCann: col. 5, lines 19-24); receiving said requested IP address usage data (McCann: col. 5, lines 19-24); determining whether one or more of said plurality of local IP address pools should be reallocated based upon at least said requested IP address usage data (McCann: col. 5, lines 19-39, 54- col. 6, line 10); reallocating one or more of said plurality of local IP address pools based upon said determining (McCann: col. 5, lines 66- col. 6, line 10); and

The McCann reference further teaches the invention interacts with neighboring or remote network non-local IP address pool reducing the response time and limiting or eliminating server request refusals (McCann: col. 1, lines 64- col. 2, line 19).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of managing Internet Protocol addresses as taught by Waters while

employing usage data and reallocating as taught by McCann in order to reduce the response time and limiting or eliminating server request refusals (McCann: col. 1, lines 64- col. 2, line 19).

**Claim 2 is rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 6,564,216 by Waters in view of U.S. Patent No. 6,052,725 by McCann et al in further view of U.S. Publication No. 2002/0013847 by Fisher et al.**

Regarding claim 2,

The Waters and McCann references teach the method of claim 1 for managing IP addresses.

The Waters and McCann references do not explicitly state watermarks.

The Fisher reference teaches address pool includes a high watermark that indicates the maximum number of IP addresses used by said network edge device (Fisher: page 4, para 53; page 7, para 104);

said determining further comprises ascertaining whether said high watermark of a local address pool exceeds a high watermark limit (Fisher: page 7, para 104); and

said method further comprises indicating one or more IP address pools should be reallocated to give more IP addresses to the network element associated with said high watermark when said high watermark exceeds said high watermark limit (Fisher: page 7, para 104).

The Fisher reference further teaches the invention overcomes problems of coordination of configuration data such as IP addresses to provide dynamic and coherent management of network resources (Fisher: page 2, para 28- page 3, para 30).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of managing Internet Protocol addresses as taught by Waters and McCann while employing a threshold as taught by Fisher in order to provide dynamic and coherent management of network resources (Fisher: page 2, para 28- page 3, para 30).

While the examiner understands the difference between a method, program storage device, and an apparatus capable of or for managing Internet Protocol addresses on a data

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communications network, the examiner equates the method as the actions and code in which the program storage device holds performing the apparatus's described functions. The examiner equates the following claims as parallel limitations with different preambles.

1	25	49	73
2	26	50	74
3	27	51	75
4	28	52	76
5	29	53	77
6	30	54	78
7	31	55	79
8	32	56	80

Therefore claims 25, 49, and 73 are rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 6,564,216 by Waters in view of U.S. Patent No. 6,052,725 by McCann et al.

Claims 26, 50, 74 are rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 6,564,216 by Waters in view of U.S. Patent No. 6,052,725 by McCann et al in further view of U.S. Publication No. 2002/0013847 by Fisher et al.

Claims 27-32, 51-56, 75-80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U. S. Patent No. 6,266,523 by Cook et al teaches resource allocation in pools with dynamic and adjustable maximum and minimum thresholds (col. 5 and 6).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number is (703) 305-0324 until 10/27/2004 and 571-272-3982 after. The examiner can normally be reached on 8:00-5:30 PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (703) 308-6662 until 10/27/2004 and 571-272-3978 after. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0324 until 10/27/2004 and 571-272-3982 after.

Benjamin R Bruckart  
Examiner  
Art Unit 2155  
brb  
September 8, 2004

  
HOSAIN ALAM  
SUPERVISORY PATENT EXAMINER